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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/039,344	03/13/98	KIMSAL	C 16468

MM91/0606

MERCHANT & GOULD P.C.
P. O. BOX 2903
MINNEAPOLIS MN 55402-0903

EXAMINER	
NGUYEN, M	
ART UNIT	**PAPER NUMBER**
2816	

DATE MAILED: 06/06/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/039,344	Kimsal et al.
Examiner	**Group Art Unit**
Minh Nguyen	2816

☒ Responsive to communication(s) filed on *May 5, 2000*

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *1-16 and 18-22* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☒ Claim(s) *1, 2, 4-9, 11-15, 20, and 21* is/are allowed.

☒ Claim(s) *3, 10, 16, 18, 19, and 22* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on *Mar 13, 1998* is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Continued Prosecution Application

1. The request filed on 5/5/2000 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/039344 is acceptable and a CPA has been established. An action on the CPA follows.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

3. The drawings are objected to because in Fig. 3, the block circuits 22, 24, 26, 28 and 124 do not have text labels. It is suggested that the block circuit 22 is labeled "SEC control switching network", the block circuit 24 is labeled "control switching network", the block circuit 26 is labeled "stable current sink network", the block circuit 28 is labeled "active feedback network", and the block circuit 124 is labeled "recharge network".

Correction is required.

Double Patenting

4. Claim 22 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 20. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

5. Claims 3, 10, 16, 18, 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 3, the "active feedback circuit" recited on line 2 lacks clear antecedent basis, i.e., it is not clear if this is referring to the active negative feedback circuit recited on line 11 of claim 1.

As per claim 10, the "active feedback circuit" recited on line 2 lacks clear antecedent basis, i.e., it is not clear if this is referring to the active negative feedback circuit recited on line 7 of claim 9.

As per claim 16, the "second input signal" recited on line 4 and the "control node" recited on line 9 have no functional or structural relationships to the rest of the circuit, i.e., the current steering element should also "responsive to the second input signal for coupling the control node

of the return charge network to the second node of the capacitor during the recovery mode of operation and for uncoupling the control node from the capacitor during the ramp mode and hold mode of operation".

As per claims 18 and 19, these claims are rejected for the same reason noted in claim 16.

Claim Rejections - 35 USC § 102

6. Claims 16 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Colli et al. (U.S. Patent No. 5,825,218).

As per claims 16, Colli et al. discloses a linear ramp generating circuit (Fig. 5) comprising: an output node Vout, a first input node (input to switch Sw2) coupled to a first input signal COM; a second input node (input to switch Sw1) coupled to a second input signal (the inverted COM signal); a constant current source network (current sources 22 and 24); a capacitor C which has a first node coupled to ground, a second node coupled to Vout; a return charge network (transistors Q1a, Q1b, Q2a and Q2b, FETs M1, M2 and M3).

The return charge network is seen as analog active feedback circuit because it includes analog active components, i.e., bipolar transistors and FETs. The current steering element reads on switches Sw1 and Sw2.

Note that since the claim does not recite the structural relationship of the return charge network to the rest of the circuit, it is proper to not include the comparator 28 in the return charge network, and as a result the return charge network is consider exhibiting analog behavior.

As per claim 19, due to the serious indefiniteness of the claim, patentability cannot be determined at this time, but will be considered when the claim is amended to overcome indefiniteness problem noted above.

Response to Arguments

7. Applicant's arguments with respect to claims 16 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

8. Claims 1, 2, 4-9, 11-15 and 20-21 are allowed.

Claims 3, 10 and 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 1-15 and 20-21 are allowable because the prior art of record fails to disclose or suggest a linear ramp generating circuit or a method of sequentially operating of a linear ramp generation circuit which includes an active negative feedback circuit which exhibits analog behavior.

Claim 18 is allowed because the prior art of record fails to disclose or suggest a linear ramp generating circuit which includes an active feedback circuit in the return charge network

wherein the active feedback circuit in the return charge network implements an approximately second order voltage response to the capacitor during the recovery mode of operation.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is (703) 306-9179. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan, can be reached on (703)308-4876. The fax phone number for this Art Unit is (703)308-7722. Please note, any faxed paper clearly stating DRAFT or PROPOSED AMENDMENT at the top will be forwarded directly to the examiner. All others will be treated as a formal response and acted upon accordingly.

MN

June 1, 2000

TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800